APPENDIX 1 – SUMMARY OF APPLICATION METHOD ADJUSTMENT FACTORS AND METHOD USE FRACTIONS

Table A1 - 1. Application Method Adjustment Factors.

			AM	AF		
Fumigation Method ¹	1,3-D	Chloropicrin	Methyl Bromide	Metam	Dazomet	Na Tetrathio carbonate
Shallow injection		•				
w/ high						
permeability tarp						
or no tarp-				not	not	not
broadcast	61*	64*	74*	applicable	applicable	applicable
Shallow injection						
w/ low						
permeability tarp-	not			not	not	not
broadcast	applicable	44	48	applicable	applicable	applicable
Shallow injection						
w/ high	_					
permeability tarp	not	C A No.	1.00%	77.4	not	not
or no tarp-bed	applicable	64*	100*	77*	applicable	applicable
Shallow injection						
w/ low	4				4	4
permeability tarp-	not	C 4*	100*	not	not	not
bed	applicable	64*	100*	applicable	applicable	applicable
Shallow injection	41	20	not	21	not	not
w/ water treatments Shallow injection	41 not	20	applicable not	21	applicable not	applicable not
w/ soil cap	applicable	not applicable	applicable	14	applicable	applicable
Deep injection w/	аррисаотс	пот аррпсавіс	аррпсаотс	14	аррисанс	аррисанс
high permeability						
tarp or no tarp-				not	not	not
broadcast	41	64*	74*	applicable	applicable	applicable
Deep injection w/			, -			
low permeability	not			not	not	not
tarp-broadcast	applicable	44	48	applicable	applicable	applicable
Deep injection w/			not	not	not	not
water treatments	27	20	applicable	applicable	applicable	applicable
Rotovate/rototill	not		not			not
	applicable	not applicable	applicable	14	17	applicable
Sprinkler	not		not		not	
	applicable	not applicable	applicable	77*	applicable	10
Sprinkler w/ water	not		not		not	not
treatments	applicable	not applicable	applicable	21	applicable	applicable
Flood	not		not		not	
	applicable	not applicable	applicable	77*	applicable	10
Drip w/ high						
permeability tarp	20	, 1, 1,	not		not	10
or no tarp	29	not applicable	applicable	9	applicable	10
Drip w/ low	not	1.5	not		not	not
permeability tarp	applicable	15	applicable	9	applicable	applicable
Non-field soil	not	100	100	not	not	not
(structural/post-	applicable	100	100	applicable	applicable	applicable

horwort)			
I Harvesii			
harvest)			

^{*} These are considered "high-emission" fumigation methods and are prohibited within the San Joaquin Valley, Southeast Desert, and Ventura NAAs during May-October.

 $Table \ A1 - 2. \ 1990 \ frequency \ of \ fumigation \ methods \ used \ (method \ use \ fractions) \ in$ the Sacramento Metro nonattainment area.

	% of Amount Applied					
Fumigation Method ¹	1,3- D ²	Chloropicrin	Methyl Bromide	Metam ³	Dazomet ³	Na Tetrathio carbonate ⁴
Shallow injection w/ high permeability tarp or no tarp-broadcast		42	37			
Shallow injection w/ low permeability tarp-broadcast						
Shallow injection w/ high permeability tarp or no tarp-bed		42	36	3		
Shallow injection w/ low permeability tarp-bed						
Shallow injection w/ water treatments						
Shallow injection w/ soil cap				15		
Deep injection w/ high permeability tarp or no tarp-broadcast		16	14			
Deep injection w/ low permeability tarp-broadcast						
Deep injection w/ water treatments					100	
Rotovate/rototill				55	100	33
Sprinkler Sprinkler w/ water treatments				33		33
Flood				10		33
Drip w/ high permeability tarp or no tarp				10		34
Drip w/ low permeability tarp	-			5		
Non-field soil (structural/post-harvest)			13			

¹ Fumigation methods are described in detail in the memo Bary et al., 2007.
² Use of 1,3-D was suspended in early 1990.
³ DPR assumes 100% conversion of metam and dazomet to MITC and percentages are relative to the amount of MITC applied.
⁴ DPR assumes 100% conversion of sodium (Na) tetrathiocarbonate to carbon disulfide and percentages are relative to the amount of carbon disulfide applied.

Table A1 - 3. 1990 frequency of fumigation methods used (method use fractions) in the San Joaquin Valley nonattainment area.

	% of Amount Applied					
Fumigation Method ¹	1,3- D ²	Chloropicrin	Methyl Bromide	Metam ³	Dazomet ³	Na Tetrathio carbonate ⁴
Shallow injection w/ high permeability tarp or no						
tarp-broadcast Shallow injection w/ low permeability tarp- broadcast		29	29			
Shallow injection w/ high permeability tarp or no tarp-bed		29	29	8		
Shallow injection w/ low permeability tarp-bed Shallow injection w/ water						
treatments Shallow injection w/ soil cap				25		
Deep injection w/ high permeability tarp or no tarp-broadcast		42	42	23		
Deep injection w/ low permeability tarp- broadcast						
Deep injection w/ water treatments				2	100	
Rotovate/rototill Sprinkler				3 60	100	33
Sprinkler w/ water treatments						
Flood Drip w/ high permeability						33
tarp or no tarp Drip w/ low permeability tarp				2 2		34
Non-field soil (structural/post-harvest)			2005			

¹Fumigation methods are described in detail in the memo Bary et al., 2007.

²Use of 1,3-D was suspended in early 1990.

³DPR assumes 100% conversion of metam and dazomet to MITC and percentages are relative to the amount of MITC applied.

⁴DPR assumes 100% conversion of sodium (Na) tetrathiocarbonate to carbon disulfide and percentages are relative to the amount of carbon disulfide applied.

Table A1 - 4. 1990 frequency of fumigation methods used (method use fractions) in the Southeast Desert nonattainment area.

	% of Amount Applied					
Fumigation Method ¹	1,3- D ²	Chloropicrin	Methyl Bromide	Metam ³	Dazomet ³	Na Tetrathio carbonate ⁴
Shallow injection w/ high permeability tarp or no tarp-broadcast		50	35			
Shallow injection w/ low permeability tarp-broadcast		30	33			
Shallow injection w/ high permeability tarp or no tarp-bed		50	34	10		
Shallow injection w/ low permeability tarp-bed Shallow injection w/ water						
treatments Shallow injection w/ soil						
cap Deep injection w/ high						
permeability tarp or no tarp-broadcast						
Deep injection w/ low permeability tarp- broadcast						
Deep injection w/ water treatments						
Rotovate/rototill				20	100	22
Sprinkler Sprinkler w/ water treatments				30		33
Flood				50		33
Drip w/ high permeability tarp or no tarp				5		34
Drip w/ low permeability tarp				5		
Non-field soil (structural/post-harvest) 1 Eumigation methods are described	: 4.4.11 :	the many Demonstrat	31			

¹ Fumigation methods are described in detail in the memo Bary et al., 2007.

² Use of 1,3-D was suspended in early 1990.

³ DPR assumes 100% conversion of metam and dazomet to MITC and percentages are relative to the amount of MITC applied.

⁴ DPR assumes 100% conversion of sodium (Na) tetrathiocarbonate to carbon disulfide and percentages are relative to the amount of carbon disulfide applied.

Table A1 - 5. 1990 frequency of fumigation methods used (method use fractions) in the Ventura nonattainment area.

	% of Amount Applied					
Fumigation Method ¹	1,3- D ²	Chloropicrin	Methyl Bromide	Metam ³	Dazomet ³	Na Tetrathio carbonate ⁴
Shallow injection w/ high permeability tarp or no tarp-broadcast		50	49			
Shallow injection w/ low permeability tarp-broadcast						
Shallow injection w/ high permeability tarp or no tarp-bed		50	49	20		
Shallow injection w/ low permeability tarp-bed						
Shallow injection w/ water treatments						
Shallow injection w/ soil cap						
Deep injection w/ high permeability tarp or no tarp-broadcast						
Deep injection w/ low permeability tarp- broadcast						
Deep injection w/ water treatments						
Rotovate/rototill					100	
Sprinkler				50		33
Sprinkler w/ water treatments						
Flood						33
Drip w/ high permeability tarp or no tarp				15		34
Drip w/ low permeability tarp				15		
Non-field soil (structural/post-harvest)			3			

Fumigation methods are described in detail in the memo Bary et al., 2007.

²Use of 1,3-D was suspended in early 1990.

³DPR assumes 100% conversion of metam and dazomet to MITC and percentages are relative to the amount of MITC applied.

⁴DPR assumes 100% conversion of sodium (Na) tetrathiocarbonate to carbon disulfide and percentages are relative to the amount of carbon disulfide applied.

 $Table \ A1 - 6. \ 1990 \ frequency \ of \ fumigation \ methods \ used \ (method \ use \ fractions) \ in$ the South Coast nonattainment area.

	% of Amount Applied					
Fumigation Method ¹	1,3- D ²	Chloropicrin	Methyl Bromide	Metam ³	Dazomet ³	Na Tetrathio carbonate ⁴
Shallow injection w/ high permeability tarp or no tarp-broadcast		50	3			
Shallow injection w/ low permeability tarp-broadcast		30	3			
Shallow injection w/ high permeability tarp or no tarp-bed		50	3	20		
Shallow injection w/ low permeability tarp-bed		30	3	20		
Shallow injection w/ water treatments Shallow injection w/ soil						
cap Deep injection w/ high						
permeability tarp or no tarp-broadcast						
Deep injection w/ low permeability tarp- broadcast						
Deep injection w/ water treatments						
Rotovate/rototill				50	100	22
Sprinkler Sprinkler w/ water treatments				50		33
Flood						33
Drip w/ high permeability tarp or no tarp				15		34
Drip w/ low permeability tarp				15		
Non-field soil (structural/post-harvest) 1 Funigation methods are described	in detail in	the mame Degree at al	95			

¹ Fumigation methods are described in detail in the memo Bary et al., 2007.

² Use of 1,3-D was suspended in early 1990.

³ DPR assumes 100% conversion of metam and dazomet to MITC and percentages are relative to the amount of MITC applied.

⁴ DPR assumes 100% conversion of sodium (Na) tetrathiocarbonate to carbon disulfide and percentages are relative to the amount of carbon disulfide applied.

Table A1 - 7. 2005 frequency of fumigation methods used (method use fractions) in the Sacramento Metro nonattainment area.

	% of Amount Applied					
Fumigation Method ¹	1,3-D	Chloropicrin	Methyl Bromide	Metam	Dazomet ²	Na Tetrathio- carbonate ³
Shallow injection w/ high		-				
permeability tarp or no						
tarp-broadcast						
Shallow injection w/ low						
permeability tarp-						
broadcast		56.0	11.3			
Shallow injection w/ high						
permeability tarp or no						
tarp-bed				21		
Shallow injection w/ low						
permeability tarp-bed		33.0	6.3			
Shallow injection w/						
water treatments						
Shallow injection w/ soil						
cap				15		
Deep injection w/ high						
permeability tarp or no						
tarp-broadcast	99					
Deep injection w/ low						
permeability tarp-						
broadcast			11.4			
Deep injection w/ water						
treatments						
Rotovate/rototill					100	
Sprinkler				45		33
Sprinkler w/ water						
treatments						
Flood						33
Drip w/ high permeability						
tarp or no tarp	1			9		34
Drip w/ low permeability						
tarp		11.0		10		
Non-field soil						
(structural/post-harvest)			70.9			

¹Fumigation methods are described in detail in the memo Bary et al., 2007.

²DPR assumes 100% conversion of metam and dazomet to MITC and percentages are relative to the amount of MITC applied.
³DPR assumes 100% conversion of sodium (Na) tetrathiocarbonate to carbon disulfide and percentages are relative to the amount of carbon disulfide applied.

Table A1 - 8. 2005 frequency of fumigation methods used (method use fractions) in the San Joaquin Valley nonattainment area.

	% of Amount Applied					
Fumigation Method ¹	1,3-D	Chloropicrin	Methyl Bromide	Metam	Dazomet ²	Na Tetrathio- carbonate ³
Shallow injection w/ high						
permeability tarp or no						
tarp-broadcast	2					
Shallow injection w/ low						
permeability tarp-						
broadcast		97.0	79.5			
Shallow injection w/ high						
permeability tarp or no						
tarp-bed				21		
Shallow injection w/ low						
permeability tarp-bed			0.6			
Shallow injection w/						
water treatments						
Shallow injection w/ soil						
cap				20		
Deep injection w/ high						
permeability tarp or no						
tarp-broadcast	97	1.0				
Deep injection w/ low						
permeability tarp-						
broadcast		1.0	16.3			
Deep injection w/ water						
treatments						
Rotovate/rototill					100	
Sprinkler				35		33
Sprinkler w/ water						
treatments						
Flood						33
Drip w/ high permeability						
tarp or no tarp	1			14		34
Drip w/ low permeability						
tarp				10		
Non-field soil						
(structural/post-harvest)		1.0	3.7			

¹Fumigation methods are described in detail in the memo Bary et al., 2007.

²DPR assumes 100% conversion of metam and dazomet to MITC and percentages are relative to the amount of MITC applied.
³DPR assumes 100% conversion of sodium (Na) tetrathiocarbonate to carbon disulfide and percentages are relative to the amount of carbon disulfide applied.

Table A1 - 9. 2005 frequency of fumigation methods used (method use fractions) in the Southeast Desert nonattainment area.

	% of Amount Applied					
Fumigation Method ¹	1,3-D	Chloropicrin	Methyl Bromide	Metam	Dazomet ²	Na Tetrathio- carbonate ³
Shallow injection w/ high permeability tarp or no tarp-broadcast						
Shallow injection w/ low permeability tarp-broadcast		88	77.1			
Shallow injection w/ high permeability tarp or no tarp-bed				6		
Shallow injection w/ low permeability tarp-bed Shallow injection w/			18.9			
water treatments Shallow injection w/ soil						
cap Deep injection w/ high						
permeability tarp or no tarp-broadcast	10					
Deep injection w/ low permeability tarp- broadcast			1.1			
Deep injection w/ water treatments						
Rotovate/rototill Sprinkler				75	100	33
Sprinkler w/ water treatments						
Flood						33
Drip w/ high permeability tarp or no tarp	90	5		7		34
Drip w/ low permeability tarp		5		12		
Non-field soil (structural/post-harvest)		2	2.9			

Fumigation methods are described in detail in the memo Bary et al., 2007.

DPR assumes 100% conversion of metam and dazomet to MITC and percentages are relative to the amount of MITC applied.

³DPR assumes 100% conversion of sodium (Na) tetrathiocarbonate to carbon disulfide and percentages are relative to the amount of carbon disulfide applied.

Table A1 - 10. 2005 frequency of fumigation methods used (method use fractions) in the Ventura nonattainment area.

	% of Amount Applied					
Fumigation Method ¹	1,3-D	Chloropicrin	Methyl Bromide	Metam	Dazomet ²	Na Tetrathio- carbonate ³
Shallow injection w/ high		_				
permeability tarp or no						
tarp-broadcast	1					
Shallow injection w/ low						
permeability tarp-						
broadcast		67	100.0			
Shallow injection w/ high						
permeability tarp or no						
tarp-bed						
Shallow injection w/ low						
permeability tarp-bed						
Shallow injection w/						
water treatments				25		
Shallow injection w/ soil						
cap						
Deep injection w/ high						
permeability tarp or no						
tarp-broadcast	4					
Deep injection w/ low						
permeability tarp-						
broadcast						
Deep injection w/ water						
treatments						
Rotovate/rototill					100	
Sprinkler						33
Sprinkler w/ water						
treatments				20		
Flood						33
Drip w/ high permeability						
tarp or no tarp	95			5		34
Drip w/ low permeability						
tarp		33		50		
Non-field soil						
(structural/post-harvest)						

¹Fumigation methods are described in detail in the memo Bary et al., 2007.
²DPR assumes 100% conversion of metam and dazomet to MITC and percentages are relative to the amount of MITC applied.

³DPR assumes 100% conversion of sodium (Na) tetrathiocarbonate to carbon disulfide and percentages are relative to the amount of carbon disulfide applied.

Table A1 - 11. 2005 frequency of fumigation methods used (method use fractions) in the South Coast nonattainment area.

	% of Amount Applied					
Fumigation Method ¹	1,3-D	Chloropicrin	Methyl Bromide	Metam	Dazomet ²	Na Tetrathio- carbonate ³
Shallow injection w/ high permeability tarp or no tarp-broadcast						
Shallow injection w/ low permeability tarp-broadcast		40	60.9			
Shallow injection w/ high permeability tarp or no tarp-bed				25		
Shallow injection w/ low permeability tarp-bed		36	30.8			
Shallow injection w/ water treatments Shallow injection w/ soil						
cap Deep injection w/ high						
permeability tarp or no tarp-broadcast	2					
Deep injection w/ low permeability tarp- broadcast			0.5			
Deep injection w/ water treatments					100	
Rotovate/rototill Sprinkler				20	100	33
Sprinkler w/ water treatments						22
Flood Drip w/ high permeability tarp or no tarp	98			5		33
Drip w/ low permeability tarp		24		50		
Non-field soil (structural/post-harvest)			7.8			

¹Fumigation methods are described in detail in the memo Bary et al., 2007.
²DPR assumes 100% conversion of metam and dazomet to MITC and percentages are relative to the amount of MITC applied.

³DPR assumes 100% conversion of sodium (Na) tetrathiocarbonate to carbon disulfide and percentages are relative to the amount of carbon disulfide applied.

Table A1 - 12. 2006 frequency of fumigation methods used (method use fractions) in the Sacramento Metro nonattainment area.

	% of Amount Applied					
Fumigation Method ¹	1,3-D	Chloropicrin	Methyl Bromide	Metam	Dazomet ²	Na Tetrathio- carbonate ³
Shallow injection w/ high permeability tarp or no						
tarp-broadcast	3					
Shallow injection w/ low permeability tarp-						
broadcast		56.0	11.3			
Shallow injection w/ high permeability tarp or no tarp-bed				21		
Shallow injection w/ low						
permeability tarp-bed		33.0	6.3			
Shallow injection w/						
water treatments						
Shallow injection w/ soil						
cap				15		
Deep injection w/ high						
permeability tarp or no						
tarp-broadcast	95					
Deep injection w/ low						
permeability tarp-						
broadcast			11.4			
Deep injection w/ water						
treatments						
Rotovate/rototill					100	
Sprinkler				45		33
Sprinkler w/ water						
treatments						
Flood						33
Drip w/ high permeability	_			_		
tarp or no tarp	2			9		34
Drip w/ low permeability				4 -		
tarp		11.0		10		
Non-field soil			5 0.0			
(structural/post-harvest)	d in detail in	d	70.9			

¹Fumigation methods are described in detail in the memo Bary et al., 2007.

²DPR assumes 100% conversion of metam and dazomet to MITC and percentages are relative to the amount of MITC applied.

³DPR assumes 100% conversion of sodium (Na) tetrathiocarbonate to carbon disulfide and percentages are relative to the amount of carbon disulfide applied.

Table A1 - 13. 2006 frequency of fumigation methods used (method use fractions) in the San Joaquin Valley nonattainment area.

	% of Amount Applied					
Fumigation Method ¹	1,3-D	Chloropicrin	Methyl Bromide	Metam	Dazomet ²	Na Tetrathio- carbonate ³
Shallow injection w/ high		•				
permeability tarp or no						
tarp-broadcast	2					
Shallow injection w/ low						
permeability tarp-						
broadcast		97.0	79.5			
Shallow injection w/ high						
permeability tarp or no						
tarp-bed				21		
Shallow injection w/ low						
permeability tarp-bed			0.6			
Shallow injection w/						
water treatments						
Shallow injection w/ soil						
cap				20		
Deep injection w/ high						
permeability tarp or no						
tarp-broadcast	97	1.0				
Deep injection w/ low						
permeability tarp-						
broadcast		1.0	16.3			
Deep injection w/ water						
treatments						
Rotovate/rototill					100	
Sprinkler				35		33
Sprinkler w/ water						
treatments						
Flood						33
Drip w/ high permeability						
tarp or no tarp	1			14		34
Drip w/ low permeability						
tarp				10		
Non-field soil						
(structural/post-harvest) 1 Fumigation methods are described		1.0	3.7			

¹Fumigation methods are described in detail in the memo Bary et al., 2007.

²DPR assumes 100% conversion of metam and dazomet to MITC and percentages are relative to the amount of MITC applied.

³DPR assumes 100% conversion of sodium (Na) tetrathiocarbonate to carbon disulfide and percentages are relative to the amount of carbon disulfide applied.

 $Table \ A1 - 14.\ 2006\ frequency\ of\ fumigation\ methods\ used\ (method\ use\ fractions)\ in$ the Southeast Desert nonattainment area.

	% of Amount Applied					
Fumigation Method ¹	1,3-D	Chloropicrin	Methyl Bromide	Metam	Dazomet ²	Na Tetrathio- carbonate ³
Shallow injection w/ high permeability tarp or no tarp-broadcast						
Shallow injection w/ low permeability tarp-		00.0	77.1			
broadcast Shallow injection w/ high permeability tarp or no		88.0	77.1			
tarp-bed				6		
Shallow injection w/ low permeability tarp-bed			18.9			
Shallow injection w/ water treatments						
Shallow injection w/ soil cap						
Deep injection w/ high permeability tarp or no tarp-broadcast	16					
Deep injection w/ low permeability tarp-	10					
broadcast Deep injection w/ water treatments		0.2	1.1			
Rotovate/rototill					100	
Sprinkler W/ water treatments				75		33
Flood						33
Drip w/ high permeability tarp or no tarp	84	5.0		7		34
Drip w/ low permeability tarp		5.0		12		
Non-field soil (structural/post-harvest)		2.0	2.9			

Fumigation methods are described in detail in the memo Bary et al., 2007.

DPR assumes 100% conversion of metam and dazomet to MITC and percentages are relative to the amount of MITC applied.

DPR assumes 100% conversion of sodium (Na) tetrathiocarbonate to carbon disulfide and percentages are relative to the amount of carbon disulfide applied.

Table A1 - 15. 2006 frequency of fumigation methods used (method use fractions) in the Ventura nonattainment area.

	% of Amount Applied					
Fumigation Method ¹	1,3-D	Chloropicrin	Methyl Bromide	Metam	Dazomet ²	Na Tetrathio- carbonate ³
Shallow injection w/ high permeability tarp or no tarp-broadcast						
Shallow injection w/ low permeability tarp-broadcast		67.0	100.0			
Shallow injection w/ high permeability tarp or no tarp-bed						
Shallow injection w/ low permeability tarp-bed Shallow injection w/						
water treatments				25		
Shallow injection w/ soil cap						
Deep injection w/ high permeability tarp or no tarp-broadcast	7					
Deep injection w/ low permeability tarp- broadcast						
Deep injection w/ water treatments						
Rotovate/rototill Sprinkler					100	33
Sprinkler w/ water treatments				20		33
Flood						33
Drip w/ high permeability tarp or no tarp	93			5		34
Drip w/ low permeability tarp		33.0		50		
Non-field soil (structural/post-harvest)						

Fumigation methods are described in detail in the memo Bary et al., 2007.

DPR assumes 100% conversion of metam and dazomet to MITC and percentages are relative to the amount of MITC applied.

DPR assumes 100% conversion of sodium (Na) tetrathiocarbonate to carbon disulfide and percentages are relative to the amount of carbon disulfide applied.

Table A1 - 16. 2006 frequency of fumigation methods used (method use fractions) in the South Coast nonattainment area.

		9/	6 of Amou	ount Applied			
Fumigation Method ¹	1,3-D	Chloropicrin	Methyl Bromide	Metam	Dazomet ²	Na Tetrathio- carbonate ³	
Shallow injection w/ high							
permeability tarp or no							
tarp-broadcast							
Shallow injection w/ low							
permeability tarp-							
broadcast		40.0	60.9				
Shallow injection w/ high							
permeability tarp or no							
tarp-bed				25			
Shallow injection w/ low							
permeability tarp-bed		36.0	30.8				
Shallow injection w/							
water treatments							
Shallow injection w/ soil							
cap							
Deep injection w/ high							
permeability tarp or no							
tarp-broadcast							
Deep injection w/ low							
permeability tarp-							
broadcast			0.5				
Deep injection w/ water							
treatments							
Rotovate/rototill					100		
Sprinkler				20		33	
Sprinkler w/ water							
treatments							
Flood						33	
Drip w/ high permeability							
tarp or no tarp	100			5		34	
Drip w/ low permeability							
tarp		24.0		50			
Non-field soil							
(structural/post-harvest)			7.8				

¹Fumigation methods are described in detail in the memo Bary et al., 2007.

²DPR assumes 100% conversion of metam and dazomet to MITC and percentages are relative to the amount of MITC applied.
³DPR assumes 100% conversion of sodium (Na) tetrathiocarbonate to carbon disulfide and percentages are relative to the amount of carbon disulfide applied.

Table A1 - 17. 2007 frequency of fumigation methods used (method use fractions) in the Sacramento Metro nonattainment area.

	% of Amount Applied					
Fumigation Method ¹	1,3-D	Chloropicrin	Methyl Bromide	Metam	Dazomet ²	Na Tetrathio- carbonate ³
Shallow injection w/ high	,	•				
permeability tarp or no						
tarp-broadcast	0.0					
Shallow injection w/ low						
permeability tarp-						
broadcast		56.0	11.3			
Shallow injection w/ high						
permeability tarp or no						
tarp-bed				21		
Shallow injection w/ low						
permeability tarp-bed		33.0	6.3			
Shallow injection w/						
water treatments						
Shallow injection w/ soil						
cap				15		
Deep injection w/ high						
permeability tarp or no						
tarp-broadcast	99.9					
Deep injection w/ low						
permeability tarp-						
broadcast			11.4			
Deep injection w/ water						
treatments						
Rotovate/rototill					100	
Sprinkler				45		33
Sprinkler w/ water						
treatments						
Flood						33
Drip w/ high permeability						
tarp or no tarp	0.1			9		34
Drip w/ low permeability						
tarp		11.0		10		
Non-field soil						
(structural/post-harvest)			70.9			

¹Fumigation methods are described in detail in the memo Bary et al., 2007.

²DPR assumes 100% conversion of metam and dazomet to MITC and percentages are relative to the amount of MITC applied.
³DPR assumes 100% conversion of sodium (Na) tetrathiocarbonate to carbon disulfide and percentages are relative to the amount of carbon disulfide applied.

Table A1 - 18. 2007 frequency of fumigation methods used (method use fractions) in the San Joaquin Valley nonattainment area.

	% of Amount Applied					
Fumigation Method ¹	1,3-D	Chloropicrin	Methyl Bromide	Metam	Dazomet ²	Na Tetrathio- carbonate ³
Shallow injection w/ high	,	•				
permeability tarp or no						
tarp-broadcast	0.3					
Shallow injection w/ low						
permeability tarp-						
broadcast		97.0	79.5			
Shallow injection w/ high						
permeability tarp or no						
tarp-bed				21		
Shallow injection w/ low						
permeability tarp-bed			0.6			
Shallow injection w/						
water treatments						
Shallow injection w/ soil						
cap				20		
Deep injection w/ high						
permeability tarp or no						
tarp-broadcast	99.3	1.0				
Deep injection w/ low						
permeability tarp-						
broadcast		1.0	16.3			
Deep injection w/ water						
treatments						
Rotovate/rototill					100	
Sprinkler				35		33
Sprinkler w/ water						
treatments						
Flood						33
Drip w/ high permeability						
tarp or no tarp	0.4			14		34
Drip w/ low permeability						
tarp				10		
Non-field soil						
(structural/post-harvest)		1.0	3.7			

¹Fumigation methods are described in detail in the memo Bary et al., 2007.

²DPR assumes 100% conversion of metam and dazomet to MITC and percentages are relative to the amount of MITC applied.
³DPR assumes 100% conversion of sodium (Na) tetrathiocarbonate to carbon disulfide and percentages are relative to the amount of carbon disulfide applied.

Table A1 - 19. 2007 frequency of fumigation methods used (method use fractions) in the Southeast Desert nonattainment area.

	% of Amount Applied					
Fumigation Method ¹	1,3-D	Chloropicrin	Methyl Bromide	Metam	Dazomet ²	Na Tetrathio- carbonate ³
Shallow injection w/ high						
permeability tarp or no						
tarp-broadcast	0.4					
Shallow injection w/ low						
permeability tarp-						
broadcast		88.0	77.1			
Shallow injection w/ high						
permeability tarp or no						
tarp-bed				6		
Shallow injection w/ low						
permeability tarp-bed			18.9			
Shallow injection w/						
water treatments						
Shallow injection w/ soil						
cap						
Deep injection w/ high						
permeability tarp or no						
tarp-broadcast	0.0					
Deep injection w/ low						
permeability tarp-						
broadcast		0.2	1.1			
Deep injection w/ water						
treatments						
Rotovate/rototill					100	
Sprinkler				75		33
Sprinkler w/ water	1					
treatments						
Flood						33
Drip w/ high permeability						
tarp or no tarp	99.6	5.0		7		34
Drip w/ low permeability						
tarp		5.0		12		
Non-field soil	1					
(structural/post-harvest)		2.0	2.9			

Fumigation methods are described in detail in the memo Bary et al., 2007.

DPR assumes 100% conversion of metam and dazomet to MITC and percentages are relative to the amount of MITC applied.

DPR assumes 100% conversion of sodium (Na) tetrathiocarbonate to carbon disulfide and percentages are relative to the amount of carbon disulfide applied.

Table A1 - 20. 2007 frequency of fumigation methods used (method use fractions) in the Ventura nonattainment area.

	% of Amount Applied					
Fumigation Method ¹	1,3-D	Chloropicrin	Methyl Bromide	Metam	Dazomet ²	Na Tetrathio- carbonate ³
Shallow injection w/ high permeability tarp or no tarp-broadcast						
Shallow injection w/ low permeability tarp-broadcast		67.0	100.0			
Shallow injection w/ high permeability tarp or no tarp-bed						
Shallow injection w/ low permeability tarp-bed						
Shallow injection w/ water treatments				25		
Shallow injection w/ soil cap						
Deep injection w/ high permeability tarp or no tarp-broadcast	5.0					
Deep injection w/ low permeability tarp- broadcast	3.0					
Deep injection w/ water treatments						
Rotovate/rototill Sprinkler					100	33
Sprinkler w/ water treatments				20		33
Flood						33
Drip w/ high permeability tarp or no tarp	94.9			5		34
Drip w/ low permeability tarp		33.0		50		
Non-field soil (structural/post-harvest)						

Fumigation methods are described in detail in the memo Bary et al., 2007.

DPR assumes 100% conversion of metam and dazomet to MITC and percentages are relative to the amount of MITC applied.

DPR assumes 100% conversion of sodium (Na) tetrathiocarbonate to carbon disulfide and percentages are relative to the amount of carbon disulfide applied.

Table A1 - 21. 2007 frequency of fumigation methods used (method use fractions) in the South Coast nonattainment area.

	% of Amount Applied					
Fumigation Method ¹	1,3-D	Chloropicrin	Methyl Bromide	Metam	Dazomet ²	Na Tetrathio- carbonate ³
Shallow injection w/ high permeability tarp or no						
tarp-broadcast Shallow injection w/ low permeability tarp-						
broadcast		40.0	60.9			
Shallow injection w/ high permeability tarp or no tarp-bed				25		
Shallow injection w/ low permeability tarp-bed		36.0	30.8			
Shallow injection w/ water treatments						
Shallow injection w/ soil cap						
Deep injection w/ high permeability tarp or no tarp-broadcast						
Deep injection w/ low permeability tarp-						
broadcast			0.5			
Deep injection w/ water treatments						
Rotovate/rototill					100	
Sprinkler				20		33
Sprinkler w/ water treatments						
Flood						33
Drip w/ high						55
permeability tarp or no tarp	100.0			5		34
Drip w/ low permeability		2				
tarp		24.0		50		
Non-field soil (structural/post-harvest) Fumigation methods are describe	1: 1: 2:		7.8			

¹ Fumigation methods are described in detail in the memo Bary et al., 2007.

²DPR assumes 100% conversion of metam and dazomet to MITC and percentages are relative to the amount of MITC applied.
³DPR assumes 100% conversion of sodium (Na) tetrathiocarbonate to carbon disulfide and percentages are relative to the amount of carbon disulfide applied.